



Ultramid® A3ZG7 HP BK20465

BASF Corporation - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Ultramid A3ZG7 HP BK20465 is a 33% glass reinforced, heat stabilized, impact modified PA66 black with a combination of excellent impact resistance, toughness and strength.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight
Additive	• Heat Stabilizer • Impact Modifier
Features	• Heat Stabilized • High Strength • Impact Modified • High Impact Resistance • High Toughness • Oil Resistant
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• FORD WSK-M4D703-A
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.33	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.30	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.30E+6	979000	psi	ISO 527-2
Tensile Stress (Break, 73°F)	21200	15500	psi	ISO 527-2
Tensile Strain (Break, 73°F)	4.7	8.4	%	ISO 527-2
Flexural Modulus (73°F)	1.22E+6	924000	psi	ISO 178
Flexural Stress (73°F)	34100	24700	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F	7.6	7.1	ft·lb/in ²	
73°F	11	13	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179
-22°F	50	49	ft·lb/in ²	
73°F	47	46	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180
-40°F	7.6	7.1	ft·lb/in ²	
73°F	11	13	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	500	--	°F	

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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 264 psi, Unannealed	475	--	°F	ISO 75-2/A
Melting Temperature (DSC)	500	--	°F	ISO 3146

Processing Information

Injection	Dry	Unit
Drying Temperature	140	°F
Drying Time	1.0 to 2.0	hr
Suggested Max Moisture	0.040 to 0.20	%
Processing (Melt) Temp	550 to 581	°F
Mold Temperature	140 to 212	°F
Injection Pressure	5080 to 18100	psi
Injection Rate	Fast	
Back Pressure	0.00 to 50.8	psi
Screw Speed	40 to 80	rpm
Screw Compression Ratio	3.0:1.0 to 4.0:1.0	

Notes

¹ Typical properties: these are not to be construed as specifications.